

SECTOR 13

COAST OF GREECE—SARONIKOS KOLPOS

Plan.—This sector describes Saronikos Kolpos, beginning with the W side, and includes the off-lying islands and the port of Piraeus. The N part of the gulf, including Kolpos Elefsinos, is then described as far as the entrance to Dhiorix Korinthou (Corinth Canal).

General Remarks

13.1 Winds—Weather.—Saronikos Kolpos is subject to strong winds from the S and SW during the period from November through March. These winds have been known to make entry into the gulf very difficult. Usually, the winds from the S are the most violent and they can change direction rapidly to W and NW after rain.

Saronikos Kolpos (37°40'N., 23°40'E.), a large gulf, is entered between Akra Skillaion and Akra Sounion, 27 miles NE, and contains the large islands of Poros, Aiyina, and Salamis along with a considerable number of smaller islands and islets. Traffic is usually heavy in the outer and NW parts of the gulf which form the approaches to the port of Piraeus and the Dhiorix Korinthou. Both sides of the gulf are mountainous. Akra Skillaion is the termination of a mountainous range which reaches its summit 15 miles WNW. Spartare Panion Oros, 647m high, is the summit of a mountainous range which extends 11 miles SSE to Akra Sounion. Oros Imittos, 1,026m high, is the summit of a mountainous range, 9 miles long, which stands centered 8 miles E of Piraeus.

Nisis Ayios Yeoryios (37°29'N., 23°55'E.), 300m high, lies near the middle of the SE approach to Saronikos Kolpos and is fringed by rocks. A main light is shown from the SE extremity of this small and rocky island.

Caution.—A Traffic Separation Scheme (TSS), which may best be seen on the chart, has been established within Saronikos Kolpos and lies between Nisos Aiyina and Nisis Fleves. This scheme is IMO-adopted and Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) applies.

Large vessels should reduce speed to bare steerage way before entering the northbound lane of this TSS.

Vessels in the area lying between the N boundaries of this TSS and the adjacent coasts of the mainland, including Stenon Salaminos, should proceed with caution as heavy traffic may be encountered from all directions. This traffic consists especially of small craft, fishing boats, and pleasure craft.

Submarines frequently exercise within areas, which may best be seen on the chart, lying in Saronikos Kolpos.

13.2 West side of Saronikos Kolpos.—Akra Skillaion (37°26'N., 23°32'E.) is the SW entrance point of Saronikos Kolpos. Nisidhes Tselevinia, the islets lying close off this point, are fully described with Kolpos Idhras in Sector 12.

Akra Aliki is located at the E side of a small bay 3.6 miles NW of Akra Skillaion. The coast between is fronted by rocks in many places. Nisis Bourtzi, 20m high, lies 0.4 mile NNW of

Akra Aliki and is surmounted by an ancient fort. Ifalos Mavrokordhatou lies about 0.6 mile ENE of the islet. This shoal has a least depth of 11m and is rocky and steep-to.

Nisos Poros (37°31'N., 23°29'E.) is a mountainous island which is conspicuous due to its granite rocks and extensive pine woods. Vigla, the summit of the island, is 354m high and stands in the E part. Nisis Modhi, a rocky islet, lies 0.8 mile SSE of the E extremity of Nisos Poros. It is 102m high and resembles a crouched lion from a distance. Ifalos Lonev, a detached shoal, lies about 1.6 miles ENE of Nisis Modhi and has a least depth of 9m.

Due to the high land of Nisos Poros, the deep channel leading between its SE side and Nisis Modhi is subject to calms or unsteady winds.

Khersonisos Porou, a small peninsula, projects from the S side of Nisos Poros and is marked by a light at the S end. It is 80m high and connected to the island by a low and sandy isthmus. Several conspicuous windmills are reported to be situated on this peninsula.

Stenon Porou leads between the S end of Khersonisos Porou and the mainland. This passage is only available to small vessels and ferries with local knowledge. The fairway, which is marked by buoys, is only 100m wide and has a least depth of 4m. An overhead power cable spans the fairway and has a least vertical clearance of 44m.

Ormos Porou is entered E of Khersonisos Porou and a prominent monastery stands close inland on its NE shore. This small bay provides good anchorage in depths of 27 to 34m, sand.

Nisis Platia lies 1.4 miles NE of the N extremity of Nisos Poros. This small islet is 7m high and is surrounded by foul ground. Nisis Petrokaravo, 15m high, is the largest of a group of rocks, lying 2.6 miles NNW of Nisis Platia.

Caution.—An area prohibited to navigation extends 50m from the shore of Ormos Porou and Khersonisos Porou. Vessels must not enter this area without permission from the naval authorities.

Due to submarine cables and pipelines, which may best be seen on the chart, anchorage is prohibited in the W end of Stenon Porou.

13.3 Limin Pogonos (37°30'N., 23°25'E.), a bay, lies between the SW side of Nisos Poros and the mainland and is one of the best natural harbors in Greece for size, convenient depths, and shelter. It is entered from the N between Akra Dana and Akra Formi, 0.3 mile W. The fairway is clear and has depths of 30 to 40m. The N side of the harbor is deep, but the S side is fronted by a bank with depths of less than 5m. Good anchorage can be taken within Limin Pogonos in depths of 15 to 28m.

Ormos Vidhi forms the W end of Limin Pogonos. A water terminal, with a floating stage pipeline, is situated at the head of this small and shallow inlet.

Poros (37°30'N., 23°27'E.), a large town, stands along the W side of Khersonisos Porou at the E end of Limin Pogonos. The

small town of Galatas is situated on the mainland to the S of it. A conspicuous clock tower and a black marble column stand on the SW extremity of Khersonisos. A naval college stands on a small promontory 0.3 mile NNE of the clock tower and is fronted by several mooring buoys. Quays front the town and are used by ferries, small craft, and yachts with drafts of up to 3.5m.

13.4 Stenon Methanon (37°39'N., 23°25'E.), deep and clear of dangers, lies between Khersonisos Methanon, on the S side, and the islands of Aiyina, Moni, and Angistrion on the N side.

Caution.—Due to the existence of submarine power cables, anchoring prohibited areas, which may best be seen on the chart, extend between the E part of the N coast of Khersonisos Methanon and Nisos Aiyina and between the W part of the N coast of Khersonisos Methanon and Nisis Agistri.

Khersonisos Methanon (37°36'N., 23°22'E.), a mountainous peninsula, is joined to the mainland at the S end by a rocky isthmus, 77m high. Its coasts are precipitous and are fronted in places by above-water rocks. Korifi Kheloni (Khioniza), an extinct volcano, stands near the center of the peninsula. It is 743m high and forms the summit. The town of Methana stands at the SE side of the peninsula and is fronted by a small harbor. The quays have depths of up to 6m alongside and are used by local ferries and small coasters. There is also a small craft and yacht basin.

Nisis Moni (37°41'N., 23°26'E.), a rugged islet, is separated from the SW coast of Nisos Aiyina by Stenon Monis, a narrow channel with depths of 27 to 36m, within which the winds are always confusing. This islet is 179m high, steep-to, and is covered with pine trees in its N part. A light is shown from its SW extremity.

Nisis Angistri (37°42'N., 23°21'E.), 292m high, is covered with pine trees. Nisis Dhorousa, a rocky islet, lies close off the SW end of this island. A channel, 0.2 mile wide, leads between the island and the islet and has depths of 13 to 15m in the fairway. The village of Angistri is situated on the NW side of the island and is fronted by a small craft harbor.

Stenon Vathi leads between Akra Kostis, the SW extremity of Nisis Moni, and Akra Skilomanga, the S extremity of Nisis Angistrion, 4 miles WSW.

Nisis Kira lies 2.3 miles WNW of Nisis Dhorousa. This small island is 137m high and is fronted by rocks on its SE side. Spalathonisi, a steep-to islet, lies 0.7 mile W of Nisis Kira and is marked by a light on its NE side. The passage lying between them is deep and clear.

Nisis Metopi lies with its S end located 0.8 mile NE of Nisis Angistrion. This islet is 18m high and surrounded by rocky foul ground. Stenon Angistrioun a narrow channel, lies between this islet and the NE side of Akra Angistrion and is available to small vessels with local knowledge. The fairway, which has a least depth of 5.5m, leads between the rocky shoal banks extending from either shore and is only about 200m wide.

13.5 Nisos Aiyina (37°43'N., 23°30'E.) lies on the NE side of Stenon Methanon and near the middle of the gulf. This

island consists generally of barren hills, but some fertile valleys and plains lie on its W side. Oros, 532m high, is the summit of the island and stands near the S end. The Temple of Aphaia, a perfectly developed classical temple, stands on a hill at the NE end of the island.

Akra Krasopilia is the NE extremity of Nisos Aiyina. Akra Tourlos is located 0.5 mile S of Akra Krasopilia and is marked by a light. This point is fronted by five small and rocky islets, one of which resembles a boat under sail. Nisis Nisidha, a small islet, lies about 0.2 mile offshore, 0.7 mile WNW of Akra Krasopilia. It is surrounded by rocks and should be given a wide berth.

Ormos Ayias Marinas, a small bay, is entered 2 miles SW of Akra Krasopilia and affords temporary anchorage, during fine weather, in any convenient depth over a bottom of sand and weeds. Yachts anchor in depths of 4 to 6m in the NW corner of the bay and landing can be effected at a pier in a cove at the N end of the bay. A village, with a prominent church and several hotels, is situated close within the head of the bay.

Akra Plakakia, marked by a light, is the NW extremity of Nisos Aiyina and lies 7 miles W of Akra Krasopilia. The coast between is fronted by rocks in several places.

The town of Aiyina, with several prominent buildings and a cathedral, stands 1.2 miles SSE of Akra Plakakia and is fronted by a small harbor which is protected by breakwaters. The quays have depths of up to 3.7m alongside and are used by yachts, fishing vessels, and local ferries.

Ormos Marathonos, a small bay, indents the SW side of Nisos Aiyina and is sheltered from W and NW winds. It provides spacious and excellent anchorage. A good berth lies in depths of 18 to 35m, mud and sand, about 0.5 mile SW of the town of Marathon which stands on the NE side of the bay.

Stenon Metopis leads between the shoals fronting the NW side of Nisos Aiyina and the shoal extending ENE from the N end of Nisis Metopi. The navigable fairway through this passage is 0.4 mile wide and has a least depth of 8.5m.

Caution.—Vessels are prohibited from approaching within 50m of the N and E coasts of Nisos Aiyina for 2 miles W and S of Akra Krasopilia.

13.6 Kolpos Epidhavrou (37°35'N., 23°17'E.), a small gulf, is entered between the NW side of Khersonisos Methanon and Akra Kleftis, about 6.5 miles W. A conspicuous church stands near the coast at its SW end. This gulf is subject to heavy squalls because of the surrounding mountainous land if there is any wind.

Ormos Ayios Vlasi, a small bay, lies close S of Akra Kleftis. During good weather, especially in summer, this bay affords temporary anchorage in its N part in depths of 24 to 37m, sand. However, vessels should leave this roadstead if winds from the E arise.

Limin Palaias Epidhavrou, a small inlet, is entered between Akra Kleftis and Akra Kalamaki, 0.4 mile N. Small vessels with local knowledge can anchor in its SW part in depths of 3 to 6m. A small town, with a conspicuous church, is situated at the head of the inlet and stands at the foot of steep wooded slopes. It is fronted by a shallow small craft harbor.

Akra Trakhili, fronted by a small islet, is located 4.5 miles N of Akra Kalamaki. The coast between is indented by several

small coves which provide limited protection to small vessels with local knowledge.

Ormos Sofikou lies in the NW part of a bight which is entered between Akra Trakhili and Akra Trelli, 2.8 miles NNW. This cove affords anchorage to small vessels with local knowledge in depths of 7 to 9m, hard and fine sand. However, as this cove is surrounded by high land, the winds are always confusing.

Petronisi, 54m high, lies 1 mile E of Akra Trelli and is fronted by a bank, with a depth of 14.8m, on its E side. The passage leading W of this islet is deep and clear.

13.7 Akra Spiri (37°48'N., 23°10'E.) is located 2.6 miles N of Petronisi and a chain of islets projects E for 14 miles from this point.

Nisoi Dhiaporioi (Nisidhes Pandanisia) (37°49'N., 23°16'E.), consisting of a group of six islets, lies at the W end of this chain. Nisis Ayios Thomas, 42m high, is the W islet of this group and lies 2.8 miles E of Akra Spiri. Nisis Ayios Ioannis, 81m high, is the N and largest of the group. Nisis Molathi, the E islet of the group, lies 1 mile SE of the E end of Nisis Ayios Ioannis and is fringed with rocks and shoals. Vessels should avoid approaching this group of islets.

Nisis Ipsili, 140m high, lies 2 miles ESE of Nisis Molathi and is the highest islet of the chain. Nisis Stakhtorroi, 20m high, lies 1.5 miles NE of Nisis Ipsili and is fringed by a shoal on its S side. Nisis Platia, 15m high, lies 1 mile ESE of Nisis Stakhtorroi and is steep-to except at its SW side.

Nisidhes Eleousai (Nisidhes Lagouses) (37°49'N., 23°28'E.), consisting of a group of four islets fringed by reefs, lies 3.6 miles E of Nisis Platia. Nisis Lagousa, the E and largest islet of this group, is 34m high and is marked by a light at its E end.

Kolpos Kenkhreon (37°53'N., 23°05'E.), a large bay, lies at the NW end of Saronikos Kolpos and is entered between Akra Spiri and Akra Ayioi Theodoroi, 7.5 miles NNW.

Nisis Evraios, 83m high, lies in the S approach to the bay 3.5 miles NNW of Akra Spiri. This bluff islet is marked by a light on its NE side and several rocks lie close off its W extremity. Nisis Platia, 25m high, lies 2.5 miles W of Nisis Evraios and is fringed by a shoal bank.

13.8 Akra Kekhries (37°52'N., 23°00'E.) is a small and rugged promontory on which stands the ruins of a mill. It is the S entrance point of Ormos Kenkhreon, a small bight, which lies at the W side of Kolpos Kenkhreon. This bight is open to the E and provides anchorage to small vessels with local knowledge.

Akrokorinthos, a conspicuous city in ruins, will be seen rising over the comparatively low land extending to the W of Ormos Kenkhreon. It is situated on a hill, 573m high, which rises 6.5 miles WNW of Akra Kekhries.

The SE entrance of Dhiorix Korinthou (Corinth Canal) lies 3 miles N of Akra Kekhries. (See Sector 7).

Several white mounds of earth stand along the W side of the approach to the canal entrance and are conspicuous from seaward.

Vessels waiting to enter the canal may anchor in a designated area, which may best be seen on the chart, which extends up to

0.7 mile SE of the canal entrance. This area has depths of 11 to 31m and the holding ground is good. The bottom consists of sand in the center and mud and sand near the shore. Care must be taken not to obstruct the approach to the canal entrance.

Ormos Kalamaki (37°53'N., 23°00'E.) is entered 3.7 miles NNE of Akra Kekhries at the NW extremity of Kolpos Kenkhreon.

The village of Kalamaki stands on the NE side of Ormos Kalamaki, and a soya factory is situated close SE of it. The factory is fronted by a T-shaped pier with a berthing face 85m long and a depth of 11m alongside.

The N side of Kolpos Kenkhreon to the E of Kalamaki is described with the N side of Saronikos Kolpos.

Caution.—A prohibited anchorage area, which may best be seen on the chart, extends S from the N shore of Kolpos Kenkhreon.

13.9 East side of Saronikos Kolpos.—Akra Sounion (37°39'N., 24°02'E.), the SE entrance point of Saronikos Kolpos, is formed by a high headland. It is surmounted by the conspicuous ruins of a temple which consist of about fifteen columns of white marble. A rocky shoal, with a least depth of 6m, lies close off the SW side of the point.

Limin Sounion, a cove, lies on the W side of Akra Sounion and provides shelter for small craft with local knowledge during N winds. Anchorage can be taken in depths of 7 to 11m in the center of the cove. The bottom is mainly coarse sand and the depths decrease to 2m near the shore. There are also patches of stones and rocks which cause the holding ground to be uncertain in places. Nisis Arkhi, a small islet, lies in the approach to the cove 0.4 mile W of Akra Sounion.

Ormos Legrainon, with a noticeable sandy beach, is entered between a point, located 1.2 miles WNW of Akra Sounion and another point 1 mile W. This small bay provides convenient shelter and is frequently used when strong N or NE winds combine with a current setting S and make the passage of low powered vessels through Stenon Keas and Dhiokplous Kafireos impracticable. Vessels can anchor in a depth of 10m, mud, in the center of the bay.

Nisis Patroklou (Nisis Gaidhouroniso) (37°39'N., 23°57'E.), 251m high, is precipitous and is marked by a light on its NE side. This island is separated from the mainland by a passage with a least depth of 11m in the fairway. A dangerous wreck lies close off the SW extremity of this island and a dangerous rock lies about 0.7 mile E of the NE extremity.

Akra Katafili (37°40'N., 23°56'E.), located 4.2 miles WNW of Akra Sounion, is marked by a light. A prominent hill, 233m high, stands close inland of this point.

Ormos Anavissou, a small bay, is entered 2.7 miles N of Akra Katafili and, during summer, affords suitable anchorage for small vessels with local knowledge. It is not safe in winter except during N winds. Depths decrease from 20m in the entrance to 8m within the bay. The village of Fokaia, with several prominent hotels, is situated at the E side of the bay and is fronted by a small craft harbor.

Nisis Arsidha, 137m high, lies 0.5 mile SW of the N entrance point of Ormos Anavissou.

Vrakhoi Kouthounoi, a shallow and rocky spit, extends 1 mile SW from a point on the coast located 1 mile N of the N entrance point of Ormos Anavissou.

Akra Zostir is located 7 miles NW of Nisis Arsidha. The coast between recedes and forms a bay which is fronted by several islets and rocks which lie up to 1.4 miles from the shore. Due to these dangers, vessels are advised to give this area a wide berth.

Ormos Vouliagmenis, a small inlet, is entered between Akra Zostir and the S end of Khersonisos Lomvardha, a small peninsula, 0.7 mile W. A conspicuous hotel stands on Khersonisos Lomvardha and Vrakhonisis Kasidhis, a rock, is located 0.3 mile SSW of the S extremity. This rock is 10m high and lies on a shoal bank which extends up to about 0.6 mile seaward. The inlet has depths of 5 to 10m and affords good anchorage.

Nisis Fleves (37°46'N., 23°46'E.), 93m high, lies 1.8 mile SSW of the entrance to Ormos Vouliagmenis. This island is fringed by rocks and a small islet lies close off its NE extremity. A main light is shown from a structure standing on the SW side of this island.

Caution.—All vessels, except naval vessels, are prohibited from anchoring within Ormos Vouliagmenis without permission of the authorities.

13.10 Akra Kavouri (37°49'N., 23°46'E.), 40m high, is the W extremity of a wooded peninsula and is surmounted by two prominent radio masts. Kavouronisi, a small islet, lies close W of this point. Ifalos Kakowidhi, a rocky shoal, lies about 1 mile N of Akra Kavouri and has a least depth of 3m.

Prasonisi, a small islet, lies 1.5 miles NNW of Akra Kavouri and is connected to the coast by a shallow shoal bank.

Vrakhoi Mermingia, consisting of a group of above and below-water rocks, lies 2 miles NW of Akra Kavouri and is marked by a lighted beacon.

Akra Kolias, surmounted by a small chapel, is located 5.2 miles NW of Akra Kavouri. A rocky and shallow spit extends up to 0.5 mile SW from the vicinity of this point and is marked by a lighted beacon. An airport, with an aeronautical light, is situated 0.5 mile SE of the point.

Pirais Khersonisos (37°56'N., 23°38'E.) is located 5 miles NW of Akra Kolias and is surmounted by the buildings of the city of Piraeus. This peninsula has white and reddish-colored cliffs and appears as an island when viewed from about 10 miles to the S. Ormos Falirou, a large bay, is entered 1 mile E of the peninsula. Several small boat harbors and yacht marinas, protected by breakwaters, front the coast and the shores of the bays lying between Akra Kolias and Pirais Khersonisos.

Nisis Psittalia (37°56'N., 23°35'E.), an island, lies on the NW side of the SW approach to Piraeus. A main light is shown from a prominent structure, 14m high, standing at the NE end. Several white tombs, resembling beacons, are situated near this light. The summit of the island rises near the middle. It is 45m high and is surmounted by a monument with a mast. A light is shown from the SW extremity of the island. A wreck lies about 0.2 mile off the N coast of the island, 0.5 mile NE of the SW extremity; it has a depth of 18m. A dangerous wreck is reported to lie about 1.8 miles SSE of the E end of Nisis Psittalia.

Poros Themistokleous, 0.3 mile wide, is the strait leading between the E side of Nisis Psittalia and the mainland. Poros Aiyiniton is the strait leading NW of the island.

Nisis Atalandi, marked by a light, lies 0.4 mile WSW of the SW extremity of Nisis Psittalia. This islet is surrounded by a shallow bank which extends 0.4 mile WSW from its W side. Several stranded wrecks are reported (1995) to lie on this bank.

Dangerous wrecks are reported to lie about 0.4 mile SSW and 0.7 mile S of Nisis Atalandi. Another dangerous wreck lies close NW of the island.

Vrakhoi Skrofes, a group of above and below-water rocks, lies on a shoal about 0.9 miles WSW of Nisis Atalandi.

Caution.—A prohibited area, which may best be seen on the chart, extends 0.1 mile seaward from the coast of Nisis Psittalia.

Submarine pipelines, which may best be seen on the chart, extend up to 0.8 mile seaward of the S side of Nisis Psittalia and anchoring and fishing are prohibited in their vicinity. Due to the existence of submarine cables, a prohibited anchorage area, which may best be seen on the chart, extends between the E end of Nisis Psittalia and the mainland.

Anchoring is prohibited in the approaches to Ormos Baikhoutsis, a small cove, which indents the SW end of Pirais Khersonisos.

Vessels without permission are prohibited from entering Ormos Kanellopoulou, a small cove, which fronts the naval college at the W side of Pirais Khersonisos.

Piraeus (37°56'N., 23°38'E.)

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13.11 Piraeus, the port for Athina (Athens), is formed by an inlet which indents the coast between the N side of Pirais Khersonisos and the S side of Dhrapetsona, an industrial area. It consists of three harbor basins. Prolimin, the outer harbor; Limin Kendrikos, the main or central harbor; and Limin Alon, the inner harbor which is used by small local vessels and ferries.

Annexes to the port, which are described later, include Limin Foron, Limin Dhrapetsona, Hercules Port (Limin Irakleous), and the Perama coast facilities.

Depths—Limitations.—The entrance to the harbor of Piraeus is protected by two breakwaters, the heads of which should be given a wide berth, and has a depth of 26m.

The harbor has 6,800m of total berthage with depths of 3.2 to 12m alongside. There are facilities for general cargo, container, passenger, cruise, and ro-ro vessels. The maximum allowable draft for Piraeus is 10.9m (1998).

The port annexes also have extensive repair facilities with several dry docks. The largest dry dock is 420m long and 75m wide and can handle vessels of up to 500,000 dwt.

Aspect.—From the S approaches, the buildings and acropolis of Athina, standing 4.2 miles NE of Piraeus and 2.5 miles inland, are plainly visible. The buildings of the city of Piraeus, standing on Pirais Khersonisos, are also prominent. A signal station surmounts a conspicuous silo which stands on a pier projecting from the N side of the middle of the harbor. The gantry cranes standing at the container quays are conspicuous.

Pilotage.—Pilotage is compulsory for foreign vessels of 150 grt and over and Greek vessels of more than 1,000 grt within the Piraeus pilotage area which includes Poros

Themistokleous, Piraievs harbor, Ormos Keratsiniou, Stenon Navstathmou, Kolpos Elevsinos, Ormos Salaminos, and Poros Megaron.

Vessels proceeding to Piraievs harbor may embark a pilot about 1 mile from the entrance.

Vessels proceeding to harbors and port installations E of Nisos Salamis, or entering Kolpos Elevsinos via Stenon Navstathmou, may embark a pilot about 1.5 miles S of the entrance to Piraievs harbor.

Vessels proceeding to harbors and port installations W of Nisos Salamis, or entering Kolpos Elevsinos via Poros Megaron, may arrange to embark the pilot off Akra Petritis (37°56'N., 23°24'E.). However, vessels navigating the area for the first time are advised to embark a pilot off Piraievs.

Pilots can be contacted on VHF channel 12. Vessels should send an ETA 48 and 24 hours in advance.

Regulations.—A speed limit of 5 knots is in force within the harbor.

Signals.—The following traffic signals are shown from a mast at the signal station surmounting the silo:

Cone point up between two vertical balls, or a white light between two red lights indicate that entry is prohibited.

Two cones points together over a ball, or green, white, and red vertical lights indicate that both entry and departure are prohibited.

Two cones points together over a cone point down, or green, white, and green vertical lights indicate that departure is prohibited.

Three vertical balls, or three red vertical lights indicate that the port is closed.

When no signal is shown, vessels may enter or leave freely.

Anchorage.—A designated anchorage area, which may best be seen on the chart, extends S and SW of Nisis Atalandi.

Caution.—Heavy traffic is frequently encountered in the approaches to Piraievs with small craft proceeding in all directions and numerous large vessels at anchor.

13.12 Akra Themistokleous (37°57'N., 23°37'E.) is located 0.5 mile NW of the head of the N breakwater at Piraievs harbor. A conspicuous cement works with tall chimneys is situated in the vicinity of this point.

Limin Foron (37°57'N., 23°37'E.), an annex to the port of Piraievs, is entered close N of Akra Themistokleous. A fertilizer plant and a glass works stand on the shore of this inlet and are fronted by a quay, 200m long, with a depth of 7m alongside. Provlis Socony, a T-shaped pier, projects 115m W from the W end of the promontory forming the N side of this inlet. The berthing face at the head is 64m long and has a depth of 9m alongside.

Limin Dhrapetsonas (37°57'N., 23°37'E.), an annex to the port of Piraievs, is entered close N of Provlis Socony. This inlet is mostly used by tankers and has 1,000m of total berthage with depths of 5 to 11.5m alongside. Vessels of up to 198m in length and 10.6m draft can be accommodated alongside. It is reported that there is also a repair berth and a new vehicle carrier berth within this inlet.

Akra Keos (37°57'N., 23°36'E.) is located 0.3 mile W of the N entrance point of Limin Dhrapetsonas and a wreck, with a depth of 18m, lies close WSW of it. A breakwater, marked by a

light at its seaward end, projects 0.4 mile W from a point on the shore close N of Akra Keos.

Due to the existence of submarine cables, a prohibited anchorage area extends for a radius of 300m, centered on the point of the N shore of Akra Keos.

Nisos Salamis (Nisis Salamina) (37°56'N., 23°30'E.), a large island, lies along the N shore of Saronikos Kolpos. It rises to a height of 390m and is mostly rocky and hilly. Long and tortuous channels lying on its NE and NW sides separate this island from the mainland and lead into Kolpos Elevsinos.

Stenon Salaminos (37°59'N., 23°33'E.), the channel passing NE of Nisos Salamis, consists of Ormos Keratsiniou and Stenon Navstathmou.

13.13 Nisos Salamis—Southeast side.—Akra Konkhi (37°52'N., 23°27'E.) is the S extremity of the island. A light is shown from a prominent structure, 12m high, standing on this point. Nisidhes Peristeria, consisting of a group of small islets, lies on a coastal bank 0.5 mile E of Akra Konkhi. This group is fronted by a reef on its S side.

Akra Perani is located 4.2 miles NE of Akra Konkhi. An islet lies in the entrance of a bay 0.5 mile W of this point. Akra Tourlos, on which two beacons stand, is located 1.3 miles NE of Akra Perani.

Akra Kinosoura (37°57'N., 23°35'E.), the E extremity of Nisos Salamis, is the E end of Khersonisos Kinosoura, a narrow and hilly peninsula. This point is marked by a light and several stranded wrecks are reported to lie along the N shore of the peninsula.

Ormos Keratsiniou (37°57'N., 23°34'E.), which forms the S part of Stenon Salaminos, is entered between Akra Kinosoura and Akra Keos, 1.2 miles E. This bay may be approached via Poros Themistokleous, which leads E of Nisis Psittalia, or via Poros Aiyiniton, which leads NW of the island.

From its entrance, the fairway of Ormos Keratsiniou leads to the S end of Stenon Navstathmou, 2 miles WNW.

A dangerous wreck, marked by a lighted buoy, lies in the bay about 0.4 mile NW of Akra Kinosoura. Wrecks, with depths of 18.2m and 24m, lie about 0.3 mile NNE of Akra Kinosoura.

Caution.—An area in which anchorage is prohibited, which may best be seen on the chart, lies in the SW part of Ormos Keratsiniou.

A submarine pipeline, which may best be seen on the chart, crosses the NW end of Ormos Keratsiniou near the S entrance of Stenon Navstathmou.

Hercules Port (Limin Irakleous) (37°58'N., 23°36'E.), an annex to the port of Piraievs, lies at the NE corner of Ormos Keratsiniou. It consists of an inner harbor, protected by a breakwater, and an outer container terminal which extends to the W of the inner harbor. A conspicuous tall chimney stands near a mill which is situated close to the root of the breakwater.

The inner harbor has 5,450m of total berthage with depths of 4 to 12.5m alongside. It has facilities for general cargo, bulk, and ro-ro vessels. Vessels of up to 10m draft can be accommodated alongside.

The container terminal has two quays, 950m and 700m long, with depths of 7.2 to 13m alongside.

Perama (37°58'N., 23°35'E.), a small town, is situated along the W part of the N shore of Ormos Keratsiniou and is an annex of the port of Piraievs. An oil terminal fronts a storage depot situated in the E part of the town. It consists of a jetty which extends 350m SE and has depths of 9 to 11m alongside. The W part of the town is fronted by extensive ship repair facilities. A small harbor for fishing vessels fronts the W end of the town.

Ormos Ambellkion (37°57'N., 23°33'E.), a small inlet, lies in the SW corner of Ormos Keratsiniou and contains moorings and repair facilities for naval vessels. There are depths of 6 to 10m in the entrance which decrease regularly toward the shallow and sandy head of the inlet. Several lay-up berths extend along the N side of Khersonisos Kinosoura to the E of the entrance to this inlet.

Caution.—Several dangerous wrecks are located N of Khersonisos Kinosoura and caution should be exercised while navigating in the vicinity.

13.14 Stenon Navstathmou (38°00'N., 23°35'E.), the N part of Stenon Salaminos, is entered from Ormos Keratsiniou NE of Akra Pounda which is located 1.4 miles WNW of Akra Kinosoura. A coastal bank extends about 0.4 mile E of Akra Pounda and is marked at its seaward edge by a lighted buoy.

Nisis Ayios Yeoryios lies at the SW end of the channel 0.7 mile NW of Akra Pounda. This islet is 9m high and is connected at its W end to the E side of Nisos Salamis by a causeway. A conspicuous tank stands at the E end of this islet. A shoal lies on the W side of the channel about 0.3 mile N of the E end of the islet. It has a least depth of 7.1m and is marked by a lighted buoy.

A government dockyard and a naval base, which are backed by hills, front the E side of Nisos Salamis between Nisis Ayios Yeoryios and Akra Arapis, 1.3 miles N. A prominent hill, 210m high, stands 0.7 mile W of Akra Arapis.

Nisis Leros, 61m high, is located with its NE extremity 0.9 mile NNE of Akra Arapis. This islet lies at the NW side of the channel and is connected at its SW end to Nisos Salamis by a causeway. Several mooring buoys lie along the W side of the channel between Nisis Ayios Yeoryios and Nisis Leros.

Akra Filatouri, marked by a light, is located on the E side of the channel 0.6 mile E of Akra Arapis. Nisis Arpidhoni lies 0.2 mile offshore, 0.6 mile NE of Akra Filatouri. This islet is located at the seaward edge of the coastal bank and is marked by a light at its W end.

Nisis Megali Kira, 18m high, lies at the NE end of the channel and is marked by a light. This islet along with Nisis Mikri Kira, another islet lying close SE, are collectively known as Nisidhes Farmakousai. These islets are connected to each other and to the mainland by causeways. A pier, 100m long, extends SE from the SE side of Nisis Megali Kira and a pier, 120m long, extends SSW from the SW side of Nisis Mikri Kira.

Limeniskos Amfiali, a small harbor, lies on the NE side of the channel, 1.2 miles NE of Akra Filatouri. It is protected by a breakwater and the quays in the N part have a depth of 4.9m alongside.

The fairway leading through Stenon Navstathmou has a maximum permissible draft of 10.9m (1998).

A speed limit of 6 knots is in force

Regulations.—A speed limit of 6 knots is in force within the channel.

Vessels are prohibited from passing in the channel and, at all times, S bound vessels have priority of passage over N bound vessels.

Tug escorts are required for vessels over 120m in length for daytime transits and for vessels over 75m in length for nighttime transits.

All traffic movements are controlled by the naval authorities. Foreign vessels desiring to transit this passage should request permission from Piraievs Port Authority or Eleusis Port Authority. Requests should include name of vessel, nationality, grt, length, maximum draft, destination, cargo, and time of passage.

Night transits are discouraged by the authorities. However, if unavoidable, requests for such must be made at least 6 hours in advance and not later than 2000 hours.

Caution.—Landing on Nisis Ayios Yeoryios is prohibited.

A ferry runs across the S part of the channel.

Navigation prohibited areas, which may best be seen on the chart, front the shores on both sides of the channel fairway.

Several submarine cables and pipelines lie across the channel and may best be seen on the chart.

13.15 Nisos Salamis—Southwest side.—Akra Kanakia (37°53'N., 23°24'E.) is located 2.5 miles NW of Akra Konkhi, the S extremity of the island. The coast between is rocky, indented and mostly steep-to. A rocky reef, with a least depth of 7.1m, lies about 0.3 mile SSW of Akra Kanakia.

Nisidhes Kanakia, consisting of two islets, lies 0.7 mile NNW of Akra Kanakia and is fronted by rocks. The W and smaller islet is marked by a light.

Akra Petritis (37°56'N., 23°24'E.), fronted by rocks, is located 2.1 miles NNE of Akra Kanakia. Ifalos Mastif, a rocky reef, lies about 1 mile N of this point and has a least depth of 7.1m.

Ormos Salaminos (37°57'N., 23°25'E.) indents the W coast of Nisos Salamis and is entered between Akra Petritis and Akra Karas, 1.7 miles NNE. Akra Karas is the W extremity of the N part of Nisos Salamis and is marked by a light. The town of Salamis (Koulouri) is situated at the head of this bay and is fronted by a small craft harbor. Vessels can anchor in a depth of 9m, mud, about 0.4 mile SW of the harbor or in a depth of 22m, mud and weed, about 1 mile SW of the harbor.

A prominent war memorial is reported to stand on the N side of the bay near the head.

A naval fuel depot is situated on the S side of the bay, 1.5 miles E of Akra Petritis. It is fronted by a T-shaped jetty with dolphins and mooring buoys on each side. The head is 60m long and has a depth of 10m alongside. A submarine pipeline extends about 300m NNE from close E of the jetty and several buoys lie at its seaward end.

Pilotage is compulsory within Ormos Salaminos. (See Pilotage for Piraievs).

Caution.—Navigation and anchoring without permission are prohibited within an area, which may best be seen on the chart, which extends up to 0.5 mile N of the fuel depot. This area is marked by yellow conical buoys. Similar buoys mark the limit of shoal water on the W side of the approach to the jetty.

13.16 Poros Megaron—Southwest approach.—**Nisis Revithousa** (37°58'N., 23°24'E.), 47m high, lies with its SE extremity, which is marked by a light, located 0.5 mile WNW of Akra Karas, the N entrance point of Ormos Salaminos. A shoal, with a least depth of 5.8m, lies about 300m W of the W end of this island and is marked by a lighted buoy moored close W of it. Vessels proceeding into Kolpos Elefsinos generally pass to the E of this island.

Nisis Makronisos (37°58'N., 23°25'E.), 42m high, lies in the inner approach to Poros Megaron, 0.5 mile N of Akra Karas. This island is marked at its W extremity by a light. A channel, suitable for small craft, leads N of the island. The fairway is narrow and has a least depth of 5.3m.

The main channel leading to Poros Megaron passes to the SE of Nisis Makronisos. The fairway, which has a least depth of 10.8m, is marked by lighted buoys.

Akra Tikhos (37°58'N., 23°25'E.), located 0.8 mile NNE of Akra Karas, is the E termination of a promontory and forms the SW entrance point of Poros Megaron. A conspicuous radio mast stands close W of this point.

Megara Oil Terminal (Agia Trias) (37°58'N., 23°24'E.) lies on the S side of the promontory 0.8 mile W of Akra Tikhos. A T-head pier, 205m long, extends SE from the shore. Its head is 63m wide and has a depth of 12.8m alongside. Tankers of up to 85,000 dwt and 12m draft can be accommodated.

Pilotage is compulsory and is provided from Piraievs. Pilots can be contacted by VHF and with prior notice board off Akra Petritis. Vessels proceeding to this terminal for the first time are recommended to embark the pilot off Piraievs harbor.

13.17 Ormos Ayiou Yeoryiou (37°58'N., 23°26'E.) lies at the E side of the inner approach to Poros Megaron 1.4 miles ENE of Akra Karas. This bay provides good shelter and is bordered on its N side by a promontory which forms the NW end of Nisos Salamis. Depths of less than 5m lie up to 0.2 mile offshore at the head of this bay and a patch of foul ground lies in the NE corner. Vessels can anchor in a depth of 13m, mud and sand with good holding ground, about 0.4 mile W of the head of the bay.

Ormos Vourkadhi, a shallow bay, lies on the W side of Poros Megaron, 1.2 miles NW of Akra Tikhos. It is available only to small craft with local knowledge.

Poros Megaron (37°59'N., 23°25'E.) lies between the NW side of Nisos Salamis and the mainland to the W. This strait consists of a channel which leads 0.6 mile NW from the S entrance and then 0.9 mile NE into Kolpos Elefsinos. The fairway, which is marked by lighted buoys, is dredged to a depth of 7.9m over a bottom width of 180m.

A conspicuous tank farm is situated on the NW side of the channel.

Generally, vessels up to 183m in length and of suitable draft can use this passage.

Pilotage is compulsory for foreign vessels of 150 grt and over and Greek vessels over 1,000 grt. (See Pilotage for Piraievs).

Caution.—Vessels about to enter Poros Megaron from either end should give a signal of one prolonged blast.

A ferry runs across the N part of the channel.

The buoyage marking reverses when crossing a line, which may best be seen on the chart, at the N end of Poros Megaron.

13.18 Kolpos Elefsinos (38°01'N., 23°31'E.) is a landlocked gulf lying at the N head of Kolpos Saronikos. It can be approached from the SE via Stenon Salaminos or from the SW via Poros Megaron.

The S, SE, and N sides of the gulf are backed by steep mountains. The coast on the NE side is low and is backed by a cultivated plain. Numerous factories and industrial plants are situated along this stretch of the gulf. The NW side of the gulf is covered with pine woods and backed by a plain.

The bottom of this gulf is notably level and the shores are, for the most part, bordered by shallow banks. Long periods of N winds may reduce the water level in Kolpos Elefsinos by as much as 0.6m.

A wreck, with a depth of 10.5m, lies about 1 mile NNW of the N entrance of Stenon Salaminos and is marked by a lighted buoy.

Dangerous wrecks are reported to lie about 0.8 mile N, 0.6 mile ENE, 0.8 miles ENE, and 1.8 miles NE of the N entrance of Stenon Salaminos.

Caution.—An extensive area, 0.4 mile wide, within which anchoring and stopping are prohibited, extends NE and SE between the N entrances of Poros Megaron and Stenon Salaminos and may best be seen on the chart.

A submarine pipeline lies close W of Akra Ayios Nikolaos and extends between the N and S shores of Kolpos Elefsinos.

A prohibited area, which may best be seen on the chart, fronts a small harbor, used by naval craft, lying at the W side of Ormos Palaska, 1.5 miles E of the N entrance of Stenon Salaminos.

13.19 Nea Peramos (38°00'N., 23°25'E.) is situated on the NW shore of the gulf, 0.8 mile NNE of the N entrance of Poros Megaron. This town can easily be identified by its conspicuous church. A tall mast and several prominent buildings stand at an airport close N of the town.

Akra Ayios Nikolaos (38°02'N., 23°29'E.), located 3.5 miles ENE of Nea Peramos, is surmounted by a chapel. Loutropirgos, a prominent resort village, is situated 0.7 mile W of this point.

Voxitos Ore Terminal (38°02'N., 23°30'E.) lies on the N side of the gulf, 0.3 mile ENE of Akra Ayios Nikolaos. It consists of an ore discharging pier, 50m long, with several mooring buoys situated off its head.

Elefsis Shipyard (38°02'N., 23°30'E.) lies in the NW part of Ormos Tourkolimano, 0.6 mile NE of Akra Ayios Nikolaos. It is fronted by a quay, 640m long, which has depths of 7 to 8m alongside. A jetty, 200m long, extends SE from the quay and has depths of 7 to 9m alongside its sides and 9 to 10m alongside its head. Several floating docks are situated at the SW end of the quay. A conspicuous overhead crane stands in the N part of the shipyard.

Petrola Hellas Oil Terminal (38°02'N., 23°31'E.) lies in the NE part of Ormos Tourkolimano, 1.2 miles NE of Akra Ayios Nikolaos. This terminal fronts a refinery and a large tank farm and consists of a quay and three jetties.

No. 1 jetty, the middle jetty, is 240m long; No. 2 jetty, the E jetty, is 512m long; and No. 3 jetty, the W jetty, is 200m long. Each of these jetties has a depth alongside of at least 14.3m. The quay, which extends E from the root of No. 2 jetty, has a depth of 11.5m alongside and can handle LPG carriers up to 150m in length. Drafts alongside are limited by the maximum draft permitted through Stenon Navstathmou.

13.20 Elevisis (38°02'N., 23°33'E.) (World Port Index No. 42200) fronts a projecting part of the N shore of Kolpos Elevsinos. The town, in which a conspicuous clock tower and several tall chimneys stand, is an industrial center with several large factories.

Depths—Limitations.—The old harbor consists of a small basin formed by two moles. It has depths of 4 to 5.5m in the center and is used primarily by small craft.

The main harbor lies close E of this small basin and consists of a quay, 310m long, with depths of 7 to 9m alongside and a pier which projects 300m SSW from the E end of the quay and has depths of 7 to 12m alongside. Vessels up to 10m draft can be handled, but docking can be difficult during strong W winds.

A jetty, 235m long, extends SW from a point on the shore 0.2 mile NW of the small basin. It is quayed for 93m on either side and has depths of 10 to 11m alongside. A mooring buoy lies close SW of the head of this jetty.

A pier and a quay front a cement factory which is situated 0.4 mile NW of the small basin. The pier, 110m long, projects SSW from the shore and has a depth of 10m alongside its head. The quay, 442m long, extends NW from the root of the pier and has depths of 9.5 to 10m alongside.

A jetty fronts a steel plant which is situated 1.1 miles ENE of the small basin. It is 180m long and has depths of 9 to 10m alongside.

Pilotage.—Pilotage is compulsory for foreign vessels of 150 grt and over and Greek vessels over 1,000 grt. (See Pilotage for Piraievs).

Anchorage.—Anchorage may be taken off Elevisis in depths of 12 to 20m, mud. A recommended berth lies in a depth of 13m about 0.2 mile W of the W jetty.

Caution.—A prohibited area, which may best be seen on the chart, fronts the shore at the E side of Elevisis and extends up to 0.4 mile seaward. Several mooring buoys lie within this area and permission for entry must be obtained from the naval authorities.

13.21 Aspropirgos Oil Terminal (38°02'N., 23°36'E.), consisting of two jetties, lies at the E side of Kolpos Elevsinos, 2.6 miles ESE of the town of Elevisis. The N jetty projects 170m W from the shore and has depths of 7.2 to 7.9 alongside. It provides berths for coastal tankers of up to 5,000 dwt and 100m in length. The S jetty projects 430m S and then 350m W from the root of the N jetty. It provides berths, with depths of 11.8m alongside, for tankers of up to 60,000 dwt and 200m in length. An LPG berth, situated between the two jetties, has a depth of 7.2m alongside and can handle vessels of up to 115m in length. Drafts alongside the terminal are limited by the maximum permitted through Stenon Navstathmou.

Mobil Oil Terminal (38°01'N., 23°35'E.) is situated 0.4 mile S of Aspropirgos Oil Terminal. It consists of a jetty which

projects 250m NW and then 300m WSW from the shore and has a depth of 13m alongside. A mooring buoy lies 270m SSE of the head.

Skaramanga Shipyard (38°01'N., 23°35'E.) lies at the SE side of Kolpos Elevsinos and fronts the shore for a distance of 0.5 mile. The yard has twenty repair berths, two dry docks, and three floating docks. Repairs of all kinds can be effected for vessels of up to 500,000 dwt.

Skaramanga Oil Terminal (38°00'N., 23°35'E.) is situated close SW of the shipyard and consists of a jetty projecting 200m NW from the shore. Vessels generally secure stern-to at the head of this jetty in a least depth of 8.5m. A wreck, with a depth of 9m, is reported to lie about 0.3 mile NW of the head of this jetty.

Caution.—The SW side of Skaramanga oil jetty falls within the limits of a prohibited area.

13.22 North side of Saronikos.—Kolpos Megaron (37°57'N., 23°20'E.) is a slight indentation which lies between Akra Tikhos and Akra Ayioi Theodoroi, 14 miles WSW.

Pakhi (37°58'N., 23°22'E.) (World Port Index No. 42190), a village, stands 2.8 miles W of Akra Tikhos and is fronted by a small craft harbor which is protected by two moles and sheltered on its W side by a small promontory. This village serves as the port for the town of Megara which is situated 1.3 miles NW.

Nisis Pakhaki, an islet, lies S of the promontory and is separated from it by a passage, 0.2 mile wide, with a least depth of 10m. Nisis Pakhi, 47m high, lies SSE of Nisis Pakhaki and its E end is marked by a light. A passage, 0.2 mile wide, leads between these islets and has a least depth of 15m in the fairway. A detached shoal, with a depth of 23m, lies about 0.5 mile ESE of the E end of Nisis Pakhi and is marked by lighted buoy.

Anchorage may be taken NE of Nisis Pakhi in depths of 25 to 46m. Small vessels may anchor in depths of 7 to 10m close off the harbor.

Pakhi Oil Terminal (37°58'N., 23°23'E.) fronts a refinery which stands 0.8 mile E of the village of Pakhi. A T-shaped pier projects 100m S from the shore and has a berthing face, 130m long, with a least depth of 30m alongside. Tankers of up to 600,000 dwt and 29m draft can be accommodated.

Pilotage is compulsory and is provided from Piraievs. Pilots can be contacted by VHF and with prior notice board off Akra Petritis. Vessels proceeding to this terminal for the first time are recommended to embark the pilot off Piraievs harbor.

13.23 Akra Ayioi Theodoroi (37°55'N., 23°08'E.) is located 11 miles WSW of Pakhi in the vicinity of a resort area. A conspicuous church is situated 1.8 miles W of this point.

Yerania Ori, 1,370m high, is a conspicuous peak standing 6 miles N of Akra Ayioi Theodoroi.

Akra Sousaki, located 4 miles W of Akra Ayioi Theodoroi, is a small and low promontory. This point is marked by a light, but on certain bearings it is reported to be difficult to distinguish against the background shore lights.

Ayioi Theodoroi Oil Terminal (37°55'N., 23°05'E.) fronts a refinery, with two conspicuous chimneys, which is situated on the N shore of Kolpos Kenkhreon 2.5 miles W of Akra Ayioi Theodoroi.

Depths—Limitations.—The terminal consists of a T-shaped pier projecting 300m SE from the shore. From the midpoint of this pier, a jetty projects 90m NE and another jetty projects 160m SW. In addition, there are numerous dolphins and mooring buoys. This facility provides five berths, with depths of 7 to 22m alongside, and can accommodate vessels of up to 21.9m draft. It was reported that tankers of up to 323,100 dwt and 346m in length have been handled.

Pilotage.—Pilotage is compulsory. Pilots can be contacted by VHF channel 14 and board 0.5 mile SE of the terminal.

Anchorage.—Tankers waiting for a berth may anchor, for periods not exceeding 10 days, in a designated area, which may best be seen on the chart, extending up to 1 mile S of the terminal.

Caution.—A prohibited anchorage area, which may best be seen on the chart, lies in the NW part of Kolpos Kenkhreon.